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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,333	07/31/2003	Vanish Talwar	200311035-2	3580

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FORT COLLINS, CO 80527-2400

EXAMINER

WEINTROP, ADAM S

ART UNIT	PAPER NUMBER
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2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/632,333

Applicant(s)

TALWAR ET AL.

Examiner

Adam S. Weintrop

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. **Claims 2-4, 6, 8-12, and 16-17** are objected to because of the following informalities:

Regarding **claim 2**, the terms "applications" on claim lines 2 and 3 should be replaced with --application programs-- to have proper antecedent basis. The term "the user" on claim lines 3-4 has not been defined and should be replaced with --a user--.

Regarding **claim 3**, the term "resource requirements" on claim line 3 should be replaced with --the resource requirements--.

Regarding **claim 4**, the term "the user" on claim line 3 has not been defined and should be replaced with --a user--.

Regarding **claim 6**, the term "the terms" on claim lines 2-3 has not been defined and should be replaced with --terms--.

Regarding **claim 8**, the term "program instructions" on claim line 7 needs to be replaced with --the program instructions-- to have proper antecedent basis.

Regarding **claim 16**, the term "the user" on claim line 2 has not been defined and should be replaced with --a user--.

Regarding **claim 17**, the term "resource requirements" on claim lines 2-3 should be replaced with --the resource requirements--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 3, 5-8, 10, 12, 15, and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by Naik et al. (US 2006/0294238).

Regarding **claim 1**, Naik et al. anticipates a method for resource allocation management for an interactive session on a grid computing system (Abstract), comprising: receiving a user request for an interactive session (section 0070, lines 1-5, with the clients sending a request for a grid service); identifying any application programs needed to be launched in said interactive session (section 0110-0111, with service requests requesting certain grid services, seen as applications); determining resource requirements for said interactive session including processor, network bandwidth, executables and files requirements (section 0055-0056, and 0058, with resources such as CPU utilization, network access, and memory, paging, and disk access as criteria being monitored for service request allocation and section 0110-0111, with executables and files being requested seen as part of the grid resource requirements to be determined upon service execution); generating a contract for the

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interactive session specifying resource allocations and authorizations (section 0064-0066, with the contract being made of resource policies, seen as authorizations as they govern which services can be deployed on a certain resource, and grid policies, seen as resource allocations, since they monitor quality of service aspects and can allocate resources only when resources are available in terms of quality, and section 0060, with policies being represented as a textual entity); and allocating resources for the interactive session in accordance with the contract (section 0070-0071, with the service request being processed according to the mapping function, which uses the resource and grid policies).

Regarding **claim 3**, Naik et al. anticipates the method of claim 1, wherein: the step of determining resource requirements includes consulting one or more application profile files which provide information concerning resource requirements for individual applications (section 0112, with each service offered being associated with a class type, thus each service has different resource requirements with different minimum service guarantees).

Regarding **claim 5**, Naik et al. anticipates the method of claim 1, wherein: the step of generating said contract includes generating an authorization policy and a service level agreement (section 0064-0066, with the contract, or policies being taken into account, being made of resource policies, seen as authorization policies as they govern which services can be deployed on a certain resource, and grid policies, seen as a service level agreement, since they monitor quality of service aspects and can allocate resources only when resources are available in terms of quality).

Regarding **claim 6**, Naik et al. anticipates the method of claim 1, further comprising: monitoring the interactive session to ensure compliance with the terms of the contract (section 0076, with the monitoring agent watching resources to comply with the policies enforced by the policy handler).

Regarding **claim 7**, Naik et al. anticipates the method of claim 1, wherein: the step of allocating resources for the interactive session is performed by a grid scheduler which receives the user request and the contract (section 0070-0071, with the request being sent to the GSRP and the GSRP uses the agreed upon quality of service, resource policies, and grid policies, to process the request).

Regarding **claim 8**, Naik et al. anticipates a system for managing resource allocation for an interactive session on a grid computing system (Abstract), comprising: one or more processors; one or more memories coupled to the one or more processors; and program instructions stored in the one or more memories (section 0049, with the system operating on computer systems), the one or more processors for executing program instructions including: receiving a user request for an interactive session (section 0070, lines 1-5, with the clients sending a request for a grid service); identifying any application programs needed to be launched in said interactive session (section 0110-0111, with service requests requesting certain grid services, seen as applications); determining resource requirements for said interactive session including processor, network bandwidth, executables and files requirements (section 0055-0056, and 0058, with resources such as CPU utilization, network access, and memory, paging, and disk access as criteria being monitored for service request allocation and

section 0110-0111, with executables and files being requested seen as part of the grid resource requirements to be determined upon service execution); generating a contract for the interactive session specifying resource allocations and authorizations (section 0064-0066, with the contract being made of resource policies, seen as authorizations as they govern which services can be deployed on a certain resource, and grid policies, seen as resource allocations, since they monitor quality of service aspects and can allocate resources only when resources are available in terms of quality, and section 0060, with policies being represented as a textual entity); and allocating resources for the interactive session in accordance with the contract (section 0070-0071, with the service request being processed according to the mapping function, which uses the resource and grid policies).

Regarding **claim 10**, Naik et al. anticipates the system of claim 8, further comprising: an application profiles repository for providing information concerning resource requirements for individual applications (section 0112, with each service offered being associated with a class type, thus each service has different resource requirements with different minimum service guarantees).

Regarding **claim 12**, Naik et al. anticipates the system of claim 8, further comprising: a grid scheduler which receives the user request and the contract and performs step of allocating resources for the interactive session (section 0070-0071, with the request being sent to the GSRP and the GSRP uses the agreed upon quality of service, resource policies, and grid policies, to process the request).

Regarding **claim 15**, Naik et al. anticipates a system for managing resource allocation for an interactive session on a grid computing system (Abstract), comprising: a distributed resource management node, the distributed resource management node including a distributed resource management interface and a grid scheduler, the grid scheduler configured to receive a user request and output an admission control decision (section 0070-0071, with the GSRP receiving user request and provides requested services by taking in to account based on several policies, and the GSRP interfaces with the polices and the user as seen in Figure 9); a contract generation engine coupled to the distributed resource management node, the contract generation engine configured to determine resource requirements for the interactive session, and generate a contract specifying resource allocations and authorizations (section 0101-0105, with the tGRM receiving resource information about services or interest and also group policies, defined in section 0088, seen as authorizations, and using it in the QoS mapper to deploy the correct amount of services and it select appropriate resources based on the requirement of the service, seen as part of a contract since it allocates resources and authorizations); and a contract repository configured to store the contract (Figure 9, with Items 500 and 600, seen as items that store the contracts that are used by the QoS mapper as described in section 0070 to map, allocate, and process service requests).

Regarding **claim 17**, Naik et al. anticipates the system of claim 15, further comprising: an application profiles repository for providing resource requirements information for individual applications (section 0112, with each service offered being

associated with a class type, thus each service has different resource requirements with different minimum service guarantees).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2, 9, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (US 2006/0294238) in view of Redbooks Paper: Fundamentals of Grid Computing (IBM, by Viktor Berstis).

Regarding **claims 2, 9, and 16**, Naik et al. discloses all of the limitations as described above, however Naik et al. does not disclose consulting a user directory to identify applications which the user is authorized to use, however Naik et al. does teach authenticating a user (Figure 9, Item 610). The general concept of allowing access to only certain users in a grid computing system is well known in the art as illustrated by Berstis. Berstis describes grid computing and its resource management. Berstis teaches that an administrator can set up user permissions for controlling user rights and that user ID's can be employed to control which part of the donor machine the users are entitled to access (page 21-23, in "An Administrator's Perspective"). This is seen as using user authorization to permit access to only certain resources available to the user in a grid system. It would have been obvious to one of ordinary skill in the art at the

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time of invention to modify Naik et al. with using user permissions as taught by Berstis in order to ensure the security of the grid computer as noted in Berstis' "Certificate Authority" section on page 22.

6. **Claims 4, 11, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (US 2006/0294238) in view of McKinnon, III et al. (US 6,823,385).

Regarding **claims 4, 11, and 18**, Naik et al. discloses all of the limitations as described above except for using a user class information base to determine what class a user belongs to in order to provide different resource allocations to each different user class. The general concept of using user class to determine resources to allocate to each user is well known in the art as illustrated by McKinnon, III et al. McKinnon, III et al. teaches allocating resources to a user based on their class. McKinnon, III et al. describes that bandwidth, seen here as a resource, is allotted to each user based on their class and their allocation policy (column 10, lines 35-47). This is seen as using user class to determine a resource allocation policy. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Naik et al. with using a user class based policy for resource allocation as taught by McKinnon, III et al. in order to facilitate competing demands for network resources as noted in McKinnon, III et al.'s disclosure in column 3, lines 28-31.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam S. Weintrop whose telephone number is 571-270-

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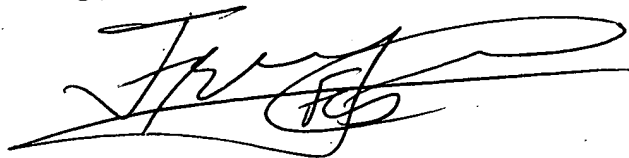
1604. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AW 4/17/07

FRANTZ JULES
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz Jules', is written over a horizontal line.